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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,482	11/14/2001	Pooman Bhandari	056859-0134	7065

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EXAMINER

PARAS JR, PETER

ART UNIT

PAPER NUMBER

1632

DATE MAILED: 03/27/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/987,482

Applicant(s)

BHANDARI ET AL.

Examiner

Peter Paras, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-36 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1, 4, 10, 12, and 19, drawn to a transgenic *Drosophila* whose genome comprises the full-length colon cancer gene having SEQ ID NO: 1, and a method for selecting a compound for pharmacological activity using the same transgenic *Drosophila*, classified in classes 800 and 800, subclasses 13 and 4.
- II. Claims 2 and 20, drawn to a transgenic *Drosophila* whose genome includes  $\beta$ -catenin binding domain comprising of amino-acids from 959 to 1870 of SEQ ID NO: 2 from the full length human APC gene of SEQ ID NO: 1, classified in class 800, subclass 13.
- III. Claims 3 and 21, drawn to a transgenic *Drosophila* comprising the N terminal domain of APC with amino acids from 1 to 767 having SEQ ID NO: 3 from the full length human APC gene of SEQ ID NO: 1, classified in class 800, subclass 13.
- IV. Claims 5, 15, 17-18, 23, 33 and 35-36, drawn to a method of determining various *Drosophila* proteins interacting with full-length and protein domains human APC protein, classified in class 800, subclass 22.
- V. Claims 6, 9, 13, 24, 27, 31 and 34, drawn to methods for determining the modulation and differential expression of genes following the mis-

expression of full-length and its protein domains human APC in *Drosophila*, comprising providing transgenic *Drosophila* and screening for differential gene expression using differential display-RT PCR or microarray techniques, classified in classes 435 and 435, subclasses 6 and 91.2.

- VI. Claims 7 and 25, drawn to a method for determining the modulation and differential expression of proteins following the mis-expression of full-length and its protein domain human APC in *Drosophila* comprising providing transgenic *Drosophila* and identifying differential gene expression and protein modifications using proteomics techniques, classified in class 435, subclass 7.1.
- VII. Claims 8, 14, 26 and 32, drawn to a method to study Wnt/Wg signaling in *Drosophila* comprising providing transgenic *Drosophila* and crossing these transgenic flies to a number of Gal4 drivers and examining developmental abnormalities, classified in class 800, subclass 21.
- VIII. Claim 11, drawn to a method for selecting a compound for pharmacological activity using transgenic *Drosophila* wherein human APC pathway is identified, classified in classes 435 and 800, subclasses 4 and 3.
- IX. Claims 22 and 28-30, drawn to a method for selecting a compound for anti-cancer activity comprising providing a transgenic *Drosophila* and

administering compounds to said *Drosophila* and screening for change in the severity of the phenotype, classified in class 800, subclass 3.

Claims 2 and 3 depend from claim 1, but appear to embrace different transgenic *Drosophila*, which comprise different transgenes. As such claims 2-3 appear to be improperly dependent from claim 1 and are properly separated into different groups for the purpose of the instant restriction requirement.

Inventions I-III are patentably distinct each from the other. Inventions are patentably distinct if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not capable of use together and have different modes of operation, different functions, and different effects. The products of Groups I-III are transgenic *Drosophila*, which are structurally and chemically distinct from each other because they comprise different transgenes. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Inventions IV-IX are patentably distinct each from the other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP §

806.04, MPEP § 808.01). In the instant case the different inventions are not capable of use together and have different modes of operation. The inventions of Groups IV-IX are materially different methods that require for practice chemically different reagents and different technical considerations. For example, the method of Group IV requires cross-breeding different *Drosophila* strains; the method of Group V requires screening for differentially expressed genes using differential display-RT PCR or microarray techniques; the method of Group VI requires identifying differentially expressed proteins using proteomics techniques; the method of Group VII is directed to studying Wnt/Wg signaling by crossing transgenic *Drosophila* with GAL4 drivers; the method of Group VIII is directed to identifying a human APC pathway using drugs that are anti-inflammatory, analgesics, antipyretics, or antineoplastics; and the method of Group IX is directed to a method of screening for compounds that have anti-cancer activity. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter and separate search requirement, restriction for examination purposes as indicated is proper.

Inventions I-III and IV-IX are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for using the product as claimed can be practiced with other materially different products and the products as claimed can be used in materially different processes. For

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example, the claimed methods can be practiced with different transgenic *Drosophila* and the transgenic *Drosophila* can be used to produce a protein. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter and separate search requirement, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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Any inquiry concerning this communication or earlier communications from the Examiner(s) should be directed to Peter Paras, Jr., whose telephone number is 703-308-8340. The examiner can normally be reached Monday-Friday from 8:30 to 4:30 (Eastern time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Reynolds, can be reached at 703-305-4051. Papers related to this application may be submitted by facsimile transmission. Papers should be faxed via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center numbers are (703) 308-4242 and (703) 305-3014.

Inquiries of a general nature or relating to the status of the application should be directed to Dianiece Jacobs whose telephone number is (703) 305-3388.

Peter Paras, Jr.  
Art Unit 1632

**PETER PARAS  
PATENT EXAMINER**  
